

REMARKS

The Examiner rejected claim 18 under 35 U.S.C. § 112, second paragraph, for allegedly being indefinite, and rejected claims 2, 8-11, 13, and 18 under 35 U.S.C. § 102(b) as anticipated by, or in the alternative, under 35 U.S.C. § 103(a) as being obvious over the prior art.

I. Rejection Under 35 U.S.C. § 112, Second Paragraph

As note above, claim 18 was rejected under 35 U.S.C. § 112, second paragraph, for allegedly being indefinite. Specifically, the Examiner points out that it is not understood “how a carbonaceous fuel can burn without producing a residue,” and that “as it is well known that all carbonaceous materials when burned will produce a residue, even if it is only condensed water.”

However, applicant does not claim that the inventive lubricant is combustible without leaving residue (any residue). Claim 18 specifies that the lubricant used in the propellant is defined to be “combustible without leaving **solid** residue **encrustations**”.

It is the prevention of the formation and deposition of such **solid encrustations** on the surfaces of the tool for which the propellant is being used is the subject-matter of the present invention.

In view of the above, it is respectfully submitted that the rejection of claims 18 as being allegedly indefinite is improper, and it is respectfully requested that the rejection of claim 18 under 35 U.S.C. § 112, second paragraph, be withdrawn.

II. Rejection Under 35 U.S.C. § 102(b)

The Examiner rejected claims 2, 8-11, 13, and 18 under 35 U.S.C. § 102(b) as being anticipated by the published U.S. patent application US 2002/0005010 to Rosenbaum.

The Rosenbaum publication can be seen as the starting point of the present invention, in that it discloses a fuel gas used for the same apparatus, namely tools operated by internal combustion, especially for setting devices for fostering elements, based on combustible gases.

It is correct that this document discloses in paragraph [0020] that the fuel gas described and claimed in this document:

“...may additionally contain a lubricant, for example one based on a mineral oil or a silicone oil, for lubricating the valve devices, which are required for introducing the fuel gas into the combustion

*chamber, or the piston or similar moving parts in the equipment
(compare a 2-stroke internal combustion engine.”*

Apart from that, however, there is no information provided by this document with respect to the problem underlying the present invention, namely the prevention of the formation of solid encrustations on the internal surfaces of the tools under consideration when using lubricants, and on the other hand, no information as to how this problem can be solved, namely by the selection of a specific lubricant, as defined in present claim 18.

The Examiner asserts that the propellant of Rosenbaum “certainly include and read on all the various claimed lubricants.” This assertion is understood that, in the opinion of the Examiner, Rosenbaum reads on the lubricant of claim 18.

It is a settled law that a rejection based on U.S.C. § 102, as in the present case, requires that the cited reference disclose each and every element covered by the Claim. Electro Medical Systems S.A. v. Cooper Life Sciences, 32 U.S.P.Q. 2d 1017, 1019 (Fed. Cir. 1994); Lewmar Marine Inc. v. Barient Inc., 3 U.S.P.Q. 2d 1766, 1767-68 (Fed. Cir. 1987); Verdegaal Bros., Inc. v. Union Oil Co., 2 U.S.P.Q. 2d 1051, 1053 (Fed. Cir 1987).

The Examiner failed to indicate where specific features of claim 18 are found in Rosenbaum. It is respectfully submitted that Rosenbaum does not disclose as a lubricant, a mixture of not more than 50% by weight of branched C₉-C₁₂ alkanes and not less than 50% by weight of branched C₁₀-C₁₄ alkanes with a boiling point ranging from 120° to 250°C.

Since Rosenbaum fails to disclose each and every feature of claim 18, Rosenbaum, as a matter of law, does not anticipate the present invention, as defined by claim 18.

In view of the above, it is respectfully submitted that Rosenbaum does not anticipate the present invention as defined in claim 18, and the present invention is patentable over Rosenbaum.

III. Rejection Under 35 U.S.C. § 103(a)

As the alternative to the § 102(b) rejection, the Examiner rejected claims 2, 8-11, 13, and 18 under 35 U.S.C. § 103(a) as being over the Rosenbaum as evidenced by <http://www.sea-doo/techarticles/oil/oil.htm>; February 2, 2003, Robert Verret (Verret).

As discussed above, Rosenbaum does not anticipate or make obvious the present invention. It is respectfully submitted that Verret likewise does not make the specific features of claim 18 obvious.

Robert Verret article is a very general article, relating to 2-stroke oils, however, as well, without defining the specific mixture used according to the present invention.

In applicant's opinion, this document leads one of ordinary skill in the art away from the subject-matter claimed, in that it clearly states that the 2-stroke engine oils discussed are defined by the API (American Petroleum Institute) into 5 different grades or groups, based on the quality of their Viscosity Index. Said 2-stroke engine oils, however, produce solid residues upon burning, a fact substantiated by the information provided in the last paragraph of the first page of this article (lines 8-7 from the bottom), stating:

"Synthetics will not decompose as easily at high engine temperatures as petroleum. The engine stays cleaner because less varnish deposits on the power valves, ring lands and piston crown."

On this information, it is clear that the mineral oil 2-stroke engine oils will provide substantially more varnish deposits than the synthetics, which, however, will produce deposits as well. The remedy for this undesired property of the lubricants disclosed in this document is the use of additives in said lubricants, as is stated in the second paragraph of the Robert Verret article. The second paragraph of page 2 of this document (lines 8-13 of the section “Additives”) states the following:

“Additives for 2-stroke oils fall into several general categories: Detergent/Dispersants, Antiwear agents, Biodegradability components, and antioxidants. Since the lubricant oil must burn as part of the combustion process in a 2-stroke engine, the residue resulting from this combustion process must be swept away after each firing stroke. If not, the residue (varnish, lacquer and other heavy hydrocarbon compounds) would build up and plug the exhaust port and stick the rings and power valve(s). Detergents/dispersants must be added to the oil to prevent this problem.”

It is therefore clear that the 2-stroke engine oils disclosed in this document and also referred to in paragraph [0020] of the Rosenbaum document

need the presence of such additives to prevent the formation of solid residues on the internal parts of the engine.

In contrast to this requirement of the prior art, the lubricant used according to the present invention and as defined in claim 18 does not require the use of such an additive.

It has been found unexpectedly by the applicant that when using the defined mixture of branched alkanes as defined in claim 18, lubricant burns with the propellant in the burning chamber of the internal combustion-operated tool under consideration without leaving any solid deposit, i.e., the lubricant burns without leaving solid residue encrustations.

This is quite surprising because internal combustion-operated tools cannot be compared to a 2-stroke engine in their operation. While the 2-stroke engine in operation operates at several thousand rpm, which certainly helps to sweep away some of the combustion residues of the fuel and the lubricant, the tools under consideration are used for fastening elements, such as nails, bolts and the like, which are driven under the action of the combustion energy of the fuel into a substrate, such as wood, steel, concrete and the like. Such a setting action, however, is not done with a high repetition rate comparable to the

revolutions per minute of a 2-stroke engine, so that there is such more the risk that any residue formed during the combustion of the fuel and the lubricant will deposit on the internal surfaces of said tool.

Applicant has found out that by selecting the lubricant as defined in claim 18, the problem underlying the present application can be solved.

In view of the above, it is respectfully submitted claim 18 is patentable over Rosenbaum in view of Verret, and is allowable.

Claim 2, 8-11, and 13 depend on claim 18 and are allowable as being dependent on an allowable subject matter.

CONCLUSION

In view of the foregoing, it is respectfully submitted that the application is in condition for allowance, and allowance of the application is respectfully requested.

Should the Examiner require or consider it advisable that the specification, claims and/or drawings be further amended or corrected in formal respects in order to place the case in condition for final allowance, it is respectfully requested that such amendment or correction be carried out by Examiner's Amendment and the case passed to issue. Alternatively, should the Examiner feel that a personal discussion might be helpful in advancing this case to allowance, the Examiner is invited to telephone the undersigned.

Respectfully submitted,

Alexander Zinchuk

Alexander Zinchuk, Reg. No. 30,541

Abelman, Frayne & Schwab
666 Third Avenue, 10th Floor
New York, NY 10017-5621
212-885-9383